

REMARKS/ARGUMENTS

This Amendment and Response is responsive to the final office action dated May 1, 2009, setting forth a shortened three-month statutory period for reply.

Claims 1-2, 4-7, 10, 24, and 25 are pending in the application, with claims 1 and 25 being independent claims. Applicants note the Examiner's acknowledgement of the withdrawal of claims 8, 9, 11-23 from consideration. Applicants acknowledge the Examiner's withdrawal of rejections toward claims 1-2, 4-7, 10, 24, and 25 under §112 paragraph 1st.

By this Amendment claims 5, 9, and 17 have been amended, but no claims have been cancelled or withdrawn. Accordingly, after entry of this Amendment and Response, claims 1-2, 4-7, 10, 24, and 25 remain pending and under examination in the application.

Applicants have not publicly dedicated or abandoned any unclaimed subject matter, and have not acquiesced to any rejections made by the Office in the Office action. Applicants reserve the right to pursue prosecution of any presently or previously excluded or cancelled claim embodiments in one or more future continuation and/or divisional applications.

For at least the following reasons, the applicants respectfully disagree with the Examiner's rejections.

Rejection under 35 U.S.C. §102

The Examiner has rejected the present claims as being anticipated under 35 U.S.C. §102, by either, Dowd et. al., U.S. Pat. No. 5,507,813 (herein after "Dowd"), Boyce et al. U.S. Pat. No. 6,863,694 (herein after "Boyce"), and/or Sherwood et al. U.S. Pat. No. 6,454,811 B1 (herein after "Sherwood").

As the M.P.E.P. makes clear, "[a] claim is anticipated only if each and every" aspect of that claim "is found, either expressly or inherently described, in a single" reference. § 2131, citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628 (Fed. Cir. 1987). In other words, anticipation requires that the reference teach the "identical invention" as found in the claim. § 2131, citing *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226 (Fed. Cir. 1989).

Because the references cited by the Examiner fail to teach each and every aspect of claim 1 or claim 25, they do not teach the identical invention, and cannot anticipate the presently claimed method. Because the cited references do not anticipate the present independent claims, all other claims which depend from claim 1 are also not anticipated.

Applicants first note that Examiner appears to object to Dowd and Boyce under 35 U.S.C. § 102(e), and Sherwood under § 102(b).

A. The Dowd reference does not anticipate independent claims 1 and 25.

Claims 1, 2, 4, 5, 7, 10, 24 and 25 were rejected under 35 U.S.C. § 102 as being anticipated by Dowd et al., U.S. Pat. No. 5,507,813.

For at least the reasons stated below, the Dowd reference fails to anticipate the presently claimed methods.

1. The Dowd reference does not recite “b) solidifying the immobilization medium to provide a solidified mass of bone and immobilization medium,” as in the presently claimed method of claim 1.

Dowd does not describe “solidifying the immobilization medium to provide a solidified mass.” Rather, Dowd describes applying a slurried bone mixture “to a form such as a flat sheet, mesh screen or three-dimensional mold.” Office Action. This is not the presently claimed “solidifying the immobilization medium.” Neither does Dowd teach “provid[ing] a solidified mass of bone and immobilization medium.” Instead, Dowd teaches a step wherein “the entangled mass of bone particles can be subjected to a compressive force.” Office Action. However, the presently claimed method does not describe a compressive force to form “a solidified mass,” rather the presently claimed method teaches that it is the “immobilization medium” that is solidified. This is made clear in the Specification, wherein after immersing bone in the immobilization medium, “[t]he immobilization medium is then solidified.” Specification, para. [0044]. This is not the method taught by Dowd.

Thus, the Examiner has failed to show that Dowd teaches “solidifying the immobilization medium to provide a solidified mass of bone and immobilization medium.” For at least this reason, the Dowd reference fails to anticipate claim 1. The Examiner’s rejection is inapposite and should be withdrawn.

2. The Dowd reference does not recite “demineralized whole bones and/or demineralized whole bone sections,” as stated in the presently claimed method of claim 25.

In addition to at least the deficiency described above, the Examiner fails to identify in Dowd any aspect of claim 25. More specifically, there is no express teaching in Dowd of either “whole bone” or “whole bone sections.” Thus, the Examiner has failed to identify each and every aspect of independent claim 25.

For at least this reason, the Dowd reference fails to anticipate claim 25. The Examiner's rejection is therefore inapposite and should be withdrawn.

The Examiner has failed to present a case for anticipation of either claim 1 or claim 25, therefore, the claims that depend from claim 1 are also not anticipated.

B. The Boyce reference does not anticipate independent claim 1.

Independent claim 1 and dependent claims 2, 4-7 and 24 were rejected under 35 U.S.C. § 102 as being anticipated by Boyce et al., U.S. Pat. No. 6,863,694.

Boyce does not teach "solidifying the immobilization medium to provide a solidified mass of bone and immobilization medium" as presently claimed. Boyce teaches "bone derived elements . . . mixed with a fluid carrier . . . to form a dough-like composition." Office Action, p.4. This is not "solidification of an immobilization medium." Nor is Boyce's "dough-like composition" a "a solidified mass of bone and immobilization medium."

Boyce further describes "optional substance[s] whose thixotropic characteristics" may aid in the prevention of bone particles settling out of the composition. Col. 13, lines 41-56. These thixotropic substances do not "provide a solidified mass of bone and immobilization medium."

At least because the Boyce reference fails to teach "solidifying the immobilization medium to provide a solidified mass of bone and immobilization medium," the Examiner's rejection is inapposite, and it should be withdrawn.

Having failed to present a case of anticipation for claim 1, all dependent claims are also not anticipated.

C. The Sherwood reference does not anticipate independent claims 1 or 25.

Independent claims 1 and 25 and dependent claims 2, 4, 5, and 10 were rejected under 35 U.S.C. § 102 as being anticipated by Sherwood et al. (US 6,454,811 B1).

For at least the reasons stated below, the Sherwood reference fails to anticipate the presently claimed methods.

1. The Sherwood reference does not recite "b) solidifying the immobilization medium to provide a solidified mass of bone and immobilization medium," as in the presently claimed method of claim 1.

Sherwood's disclosure of isopropanol "to harden the polymer and produce coacervate" cannot anticipate the presently claimed method of "solidifying the immobilization medium to provide a solidified mass of bone and immobilization medium."

Sherwood does not “solidify[] the immobilization medium” “to provide a solidified mass of bone and immobilization medium,” as presently claimed. Rather, Sherwood’s coacervate is used to coat the bone particles, and to make a powder. Sherwood makes this distinction express by noting that the “process is similar to microencapsulation techniques.” Col. 19, lines 38-39. Specifically, Sherwood describes coacervation of bone particles in Column 19:

“The production of a bone and polymer coacervate was achieved using well known technology in the field of ceramic fabrication, that used to produce ceramic greenware. The process is similar to microencapsulation techniques. Particles, in this case bone rather than ceramic, are dispersed in the polymer solution in such a manner as to cause the bone particles to become coated with polymer and to remain suspended in the polymer solvent. The coated particles are precipitated into a uniform mass of material by addition of a non-solvent for the polymer. Col. 19, lines 35-44 (emphasis added).

Sherwood teaches that after the bone particles are coated, they may “remain suspended in the polymer solvent.” Col. 19, line 42. “Remaining suspended” is not identical to “a solidified mass of bone and immobilization medium.” The coated particles are then “collected, filtered, and dried under vacuum.” Col. 19, lines 50-51. A solidified mass of bone and immobilization medium could not be filtered as taught by Sherwood.

Thus, the Examiner’s rejection is inapposite, and it should be withdrawn.

The Examiner has failed to identify “solidifying an immobilization medium to provide a solidified mass of bone and immobilization medium” as required in claim 1. Having failed to show that claim 1 is anticipated, all claims depending therefrom are also not anticipated.

2. The Sherwood reference does not recite “d) separating the bone particles from the immobilization medium,” as in the presently claimed method of claim 1.

Sherwood does not expressly or inherently teach “separating the bone particles from the immobilization medium.” Nor does the Examiner cite to Sherwood for teaching such a step.

For at least this reason, Sherwood cannot anticipate claim 1 or the claims that depend from it. The Examiner’s rejection is inapposite, and it should be withdrawn.

3. The Sherwood reference does not recite “demineralized whole bones and/or demineralized whole bone sections,” as stated in the presently claimed method of claim 25.

In addition to the deficiencies outlined above, the Examiner fails to identify in Sherwood an express or inherent teaching directed toward claim 25. Claim 25 teaches the use of

"demineralized whole bones and/or demineralized whole bone sections," but Sherwood is silent as to the use of whole bones or whole bone sections

For at least this reason, Sherwood fails to anticipate claim 25. The Examiner's rejection is inapposite, and it should be withdrawn.

Thus, the Examiner has failed to identify each and every aspect of the presently claimed method. The Examiner's rejection based on either Dowd, Boyce, or Sherwood fails. Having failed to support a rejection under 35 U.S.C. § 102, the Examiner's rejection should be withdrawn.

CONCLUSION

This application now stands in allowable form and reconsideration and allowance is respectfully requested.

This response is being submitted on or before November 1, 2009, with the required fee for a three-month extension of time, making this a timely response. It is believed that no additional fees are due in connection with this filing. However, the Commissioner is authorized to charge any additional fees, including extension fees or other relief which may be required, or credit any overpayment and notify us of same, to Deposit Account No. 04-1420.

Respectfully submitted,

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